

IN THE CLAIMS:

Please amend the claims as follows. The claims, as pending in the subject application, read as follows:

1. (Currently Amended) An image processing apparatus having input means for inputting, pixel by pixel, a multilevel image containing gray-scale information, and binarization means for binarizing the multilevel image, which has been input by the input means, to a binary image, said apparatus comprising:

communication means for communicating with an external image output device via a network;

characteristic-information storage means for receiving characteristic information concerning dot reproducibility from ~~of~~ the external image output device ~~by~~ ~~from~~ said communication means and storing the characteristic information;

connectivity control means for controlling dot connectivity ~~of~~ in the binary image when binarization is performed, ~~which is binarized by the binarization means~~, based upon the characteristic information stored by said characteristic-information storage means; and

transmitting means for transmitting the binary image~~[[,]]~~ in which the dot connectivity ~~of which~~ has been controlled by said connectivity control means, to the external image output device via said communication means.

2. (Currently Amended) The apparatus according to claim 1, wherein said characteristic-information storage means stores correlation between a parameter which decides dot connectivity in ~~of~~ a binary image ~~binarized by said binarization means~~ and ~~engine~~ the characteristic information ~~representing engine characteristics~~ of the image output device.

3. (Currently Amended) An image processing apparatus having input means for inputting, pixel by pixel, a multilevel image containing gray-scale information, and binarization means for binarizing the multilevel image, which has been input by the input means, to a binary image, said apparatus comprising:

communication means for communicating with an external image output device via a network;

characteristic-information storage means for storing characteristic information concerning dot reproducibility of the external image output device;

connectivity control means for controlling dot connectivity ~~of in~~ the binary image when binarization is performed, ~~which is binarized by the binarization means~~, based upon the characteristic information stored by said characteristic-information storage means; and

transmitting means for transmitting the binary image, in which the dot connectivity ~~of which~~ has been controlled by said connectivity control means, to the external image output device via said communication means.

4. (Currently Amended) The apparatus according to claim 3, wherein said characteristic-information storage means reads and stores the characteristic information from a storage medium which stores characteristics of the external image output device.

5. (Currently Amended) The apparatus according to claim 3, wherein the characteristic information is information indicating ~~the~~ a type of engine possessed by the image output device.

6. (Currently Amended) An image processing apparatus having input means for inputting, pixel by pixel, a multilevel image containing gray-scale information,

and binarization means for binarizing the multilevel image, which has been input by the input means, to a binary image, said apparatus comprising:

~~communication~~ reception means for ~~communicating~~ receiving a parameter ~~with from~~ an external image output device via a network, said parameter controlling dot connectivity ~~of a~~ in the binary image binarized by the binarization means;

connectivity control means for controlling dot connectivity ~~of in~~ the binary image when binarization is performed, ~~which is binarized by the binarization means~~, based upon a the parameter ~~of an output destination obtained~~ received by said ~~communication~~ reception means; and

transmitting means for transmitting the binary image[[,]] in which the dot connectivity ~~of which~~ has been controlled by said connectivity control means, to the external image output device ~~via said communication means~~.

7. (Currently Amended) An image processing apparatus having input means for inputting, pixel by pixel, a multilevel image containing gray-scale information, and binarization means for binarizing the multilevel image, which has been input by the input means, to a binary image, said apparatus comprising:

communication means for communicating with an external image output device via a network;

reading means for reading a test pattern ~~for calculating a connectivity~~ parameter;

parameter calculation means for calculating a parameter, ~~which controls~~ connectivity of the binary image binarized by said binarization means, in conformity with ~~results obtained from~~ the test pattern read by said reading means;

connectivity control means for controlling dot connectivity ~~of in~~ a binary image when binarization is performed, ~~which is binarized by said binarization means~~, based upon the parameter calculated by said parameter calculation means; and

transmitting means for transmitting the binary image[[,]] in which the dot connectivity ~~of which~~ has been controlled by the connectivity control means, to the external image output device via said communication means.

8. (Currently Amended) The apparatus according to claim 7, wherein the test pattern is for detecting the dot connectivity and is a test pattern that has been output by the external image output device.

9. (Currently Amended) An image processing method for inputting, pixel by pixel, a multilevel image containing gray-scale information, and for binarizing the multilevel image to a binary image, comprising:

a communication step of communicating with an external image output device via a network;

a characteristic-information storage step of receiving characteristic information concerning dot reproducibility ~~of from~~ the external image output device at said communication step and storing the characteristic information;

a connectivity control step of controlling dot connectivity ~~of in~~ the binary image when binarization is performed, ~~which is binarized~~, based upon the characteristic information stored at said characteristic-information storage step; and

a transmitting step of transmitting the binary image[[,]] in which the dot connectivity ~~of which~~ has been controlled at said connectivity control step, to the external image output device.

10. (Currently Amended) An image processing method for inputting, pixel by pixel, a multilevel image containing gray-scale information, and for binarizing the multilevel image to a binary image, comprising:

a communication step of communicating with an external image output device via a network;

a characteristic-information storage step of storing characteristic information concerning dot reproducibility of the external image output device;

a connectivity control step of controlling dot connectivity ~~of in~~ the binary image when binarization is performed, ~~which is binarized~~, based upon the characteristic information stored at said characteristic-information storage step; and

a transmitting step of transmitting the binary image[[,]] in which the dot connectivity ~~of which~~ has been controlled at said connectivity control step, to the external image output device.

11. (Currently Amended) An image processing method for inputting, pixel by pixel, a multilevel image containing gray-scale information, and for binarizing the multilevel image to a binary image, comprising:

a ~~communication~~ reception step of ~~communicating~~ receiving a parameter ~~with from~~ an external image output device via a network, said parameter controlling dot connectivity ~~of in~~ the binary image that is binarized;

a connectivity control step of controlling dot connectivity ~~of in~~ the binary image when binarization is performed, ~~which is binarized~~, based upon ~~a the~~ parameter ~~of an output destination obtained~~ received at said ~~communication~~ reception step; and

a transmitting step of transmitting the binary image[[,]] in which the dot connectivity ~~of which~~ has been controlled at said connectivity control step, to the external image output device.

12. (Currently Amended) An image processing method for inputting, pixel by pixel, a multilevel image containing gray-scale information, and for binarizing the multilevel image to a binary image, comprising:

a communication step of communicating with an external image output device via a network;

a reading step of reading a test pattern ~~for calculating a connectivity parameter~~;

a parameter calculation step of calculating a parameter, ~~which controls connectivity of the binary image binarized~~, in conformity with ~~results obtained~~ the test pattern read at said reading step;

a connectivity control step of controlling dot connectivity ~~of a~~ in the binary image when binarization is performed, ~~which is binarized~~, based upon the parameter calculated at said parameter calculation step; and

a transmitting step of transmitting the binary image[[,]] in which the dot connectivity ~~of which~~ has been controlled at the connectivity control step, to the external image output device.

13. (Currently Amended) The method according to claim 12, wherein the test pattern is for detecting the dot connectivity and is a test pattern that has been output by the external image output device.

14. (Currently Amended) A computer-readable storage medium storing program code of an image processing method for inputting, pixel by pixel, a multilevel image containing gray-scale information, and for binarizing the multilevel image to a binary image, comprising:

code of a communication step of communicating with an external image output device via a network;

code of a characteristic-information storage step of storing received characteristic information concerning dot reproducibility received from ~~of~~ the external image output device;

code of a connectivity control-step of controlling dot connectivity ~~of~~ in the binary image when binarization is performed, which is binarized, based upon the characteristic information stored in the characteristic-information storage step; and

code of a transmitting step of transmitting the binary image[[,]] in which the dot connectivity ~~of which~~ has been controlled, to the external image output device.

15. (Currently Amended) A computer-readable storage medium storing program code of an image processing method for inputting, pixel by pixel, a multilevel image containing gray-scale information, and for binarizing the multilevel image to a binary image, comprising:

code of a communication step of communicating with an external image output device via a network;

code of a characteristic-information storage step of storing characteristic information concerning dot reproducibility of the external image output device;

code of a connectivity control step of controlling dot connectivity ~~of~~ in the binary image when binarization is performed, which is binarized, based upon the characteristic information stored in the characteric-information storage step; and

code of a transmitting step of transmitting the binary image[[,]] in which the dot connectivity ~~of which~~ has been controlled, to the external image output device.

16. (Currently Amended) A computer-readable storage medium storing program code of an image processing method for inputting, pixel by pixel, a multilevel image containing gray-scale information, and for binarizing the multilevel image to a binary image, comprising:

code of a ~~communication~~ reception step of ~~communicating~~ receiving a parameter ~~with~~ from an external image output device via a network, said parameter controlling dot connectivity ~~of~~ in the binary image that is binarized;

code of a connectivity control step of controlling dot connectivity ~~of~~ in the binary image when binarization is performed, ~~which is binarized~~, based upon ~~an obtained~~ the parameter of an output destination received in the reception step; and

code of a transmitting step of transmitting the binary image~~[[,]]~~ in which the dot connectivity ~~of which~~ has been controlled, to the external image output device.

17. (Currently Amended) A computer-readable storage medium storing program code of an image processing method for inputting, pixel by pixel, a multilevel image containing gray-scale information, and for binarizing the multilevel image to a binary image, comprising:

code of a communication step of communicating with an external image output device via a network;

code of a reading step of reading a test pattern ~~for calculating a connectivity~~ parameter;

code of a parameter calculation step of calculating a parameter, ~~which controls connectivity of the binary image binarized~~, in conformity with results the test pattern obtained read by reading step;



code of a connectivity control step of controlling dot connectivity ~~of a~~ in the binary image when binarization is performed, ~~which is binarized~~, based upon the parameter calculated in the calculation step; and

code of a transmitting step of transmitting the binary image[[,]] in which the dot connectivity ~~of which~~ has been controlled, to the external image output device.

18. (Currently Amended) The storage medium according to claim 17, wherein the test pattern is for detecting the dot connectivity and is a test pattern that has been output by the external image output device.